

Appendix B.— Chemical analyses of water from the Clayton and other aquifers

(Analyses by U.S. Geological Survey except as noted. Aquifers: Ec, Claiborne;
Pc, Clayton; Kp, Providence. <, less than)

Site No.	Owner or name	Aquifer(s)	Date sampled	Milligrams per liter											Dissolved solids		Hardness		Specific conduc- tance, in micro- mhos at 25°C	Field pH	Temperature, in degrees Celsius	Color, in plati- num cobalt units	Carbon dioxide (CO ₂)	Micrograms per liter																			
				Silica (SiO ₂)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Alkalinity, as CaCO ₃	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Nitrite (NO ₂)	Residue at 180°C	Sum of con- stituents	Calcium, magnesium						Noncar- bonate	Aluminum (Al)	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Selenium (Se)	Strontium (Sr)	Zinc (Zn)							
Georgia Environmental Protection Division recommended limits (R) and standards (S) for safe drinking water, 1977																	250 (R)	250 (R)	1/					500 (S)	500 (R)	2/				15 (R)	3/		50 (S)	10 (S)	50 (S)	1,000 (R)	300 (R)	50 (S)	50 (R)	2.0 (S)	10 (S)		5,000 (R)
9L4	Morgan, 1	Pc,Kp	02-02-54	16	11	2.1	46	1.8	156	128	7.2	2.8	0.2	0.40	—	161	164	36	0	264	7.7	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
9L5	Morgan, 2	Pc	03-03-59	14	9.2	4.9	48	1.5	160	138	8.0	3.0	.3	.00	—	161	172	43	0	266	8.6	21.0	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
8L1	Edison	Pc	05-19-55	21	36	3.8	12	2.0	149	122	9.7	1.0	.1	1.0	—	157	160	106	0	246	7.9	21.5	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
05-09-58			23	35	5.0	12	1.9	149	122	9.5	.0	.1	.20	—	161	160	108	0	251	7.7	21.5	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
07-31-61			23	35	6.9	10	2.0	148	121	10	4.0	.2	.00	—	167	164	116	0	249	7.6	22.0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
12L20	USGS TW 6	Pc	07-03-78	20	12	6.0	33	2.8	140	110	13	1.5	.2	.04	0.00	160	158	55	0	231	7.2	22.8	10	14	20	0	0	0	0	0	180	11	10	<.5	0	360	0						
13L13	USGS TW 7	Pc	05-31-73	25	8.6	2.4	80	3.1	230	190	4.2	4.5	.7	.00	.00	241	243	32	0	284	8.0	21.7	10	—	40	2	0	0	7	110	0	10	<.5	0	380	0							
12L21	USGS TW 10	Kp	11-21-78	12	1.7	.4	85	1.6	200	190	7.6	2.4	.6	.09	.00	214	223	6	0	358	9.2	24.0	0	.2	40	0	3	1	0	50	10	0	.6	0	—	0							
12L4	Albany, 9	Ec,Pc	12-01-51	32	32	6.5	—	—	176	144	8.6	3.2	.2	.20	—	194	—	107	0	297	7.8	22.0	1	4.5	—	—	—	—	—	—	—	—	—	—	—	—	—						
05-15-57			34	31	5.5	24	2.4	178	146	6.8	2.8	.2	.30	—	192	195	100	0	287	8.0	—	2	2.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
13L2	Turner City, 2	Pc	08-16-55	21	11	5.7	40	2.8	149	122	12	2.5	.2	.40	—	162	169	50	0	256	7.6	23.5	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
04-28-76			18	11	5.1	39	3.3	146	120	12	2.7	.3	.00	.03	170	164	49	0	183	6.7	24.0	0	47	0	0	0	0	0	170	0	0	.1	0	270	0								
06-21-78			18	10	4.9	39	2.8	140	110	9.4	1.7	.2	.09	.00	163	156	45	0	229	6.6	24.0	5	56	20	1	1	0	0	250	8	10	<.5	0	260	10	—							
7J1	W. J. Howell	Pc,Kp	04-21-71	—	—	—	—	—	—	—	8.0	—	.2	—	—	—	108	—	310	8.1	20.0	0	—	—	—	0	—	0	90	0	20	—	—	—	—	50							
6K5	Blakely, 1	Pc,Kp	10-01-40	—	5.6	1.3	4.8	1.4	23	19	10	4.1	.1	.99	—	—	19	0	—	—	—	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—							
05-16-46			16	5.8	2.7	74	—	191	157	16	8.8	.4	1.6	—	218	—	26	0	—	—	—	25.0	3	—	—	—	—	—	—	6	—	—	—	—	—	—							
12M2	USGS TW 9	Pc	09-28-78	19	15	6.0	30	2.9	140	110	14	1.9	.2	.00	.00	157	159	63	0	170	7.7	21.9	5	4.5	0	0	1	0	0	120	13	10	<.5	0	410	0							
12M5	James Wingfield	Pc,Kp	01-04-59	34	52	1.6	2.6	.8	164	135	.4	1.5	.0	.10	—	184	174	136	2	267	7.5	19.0	5	8.3	—	—	—	—	—	—	—	—	—	—	—	—	—						
7N5	Cuthbert, 2 (Site 1)	Pc	04-21-71	17	50	3.5	1.5	1.3	156	128	13	2.0	.1	.00	.01	170	166	140	12	270	8.1	20.0	0	—	—	—	0	—	0	620	0	30	—	—	160	90							
7N3	Cuthbert, 3 (Site 2)	Pc	04-08-58	17	39	8.4	1.4	1.1	147	121	12	2.5	.1	.00	—	153	154	132	12	254	7.8	20.0	5	—	—	—	—	—	—	—	—	—	—	—	—	—							
07-31-61			16	48	3.9	1.2	1.2	146	120	14	2.0	.2	.00	—	161	159	136	16	255	7.7	20.0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
7N1	Cuthbert, USGS obsrv. well	Pc	06-22-78	20	56	3.7	1.8	1.5	170	140	8.0	2.1	.0	.00	.00	200	178	160	16	270	6.8	22.0	5	43	20	1	0	0	0	530	3	40	<.5	0	170	10							
7M1	Max Sheppard	Pc	05-03-66	36	54	4.2	6.9	1.4	200	164	6.0	1.0	.1	.00	—	—	209	152	0	305	7.4	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—							
6M1	Coleman, 1983 well	Pc	4/02-17-83	—	1.5	—	223.0	—	—	110	48	6.0	.3	<.01	—	193	—	176	—	—	5/5.98	—	<5	20	—	<1	<1	<1	<1	300	<1	<1	<.2	<1	—	<1							
6/02-17-83			—	—	—	—	—	—	141	—	—	—	—	—	—	—	—	146	—	—	5/8.1	—	—	—	—	—	—	—	—	800	—	—	—	—	—								
11Q3	Bowen	Pc	01-09-59	33	48	3.6	3.5	1.5	149	—	18	1.0	.1	.1	—	194	182	135	13	276	7.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
10N1	Dawson, 3	Pc	07-31-61	26	40	3.6	6.8	2.2	143	—	14	2.0	.1	.0	—	170	165	115	0	252	7.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
10N8	Dawson, 1	Pc	02-02-38	24	39	4.9	7.5	2.0	142	—	14	2.1	.0	—	—	164	11	118	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							

1 State standards for fluoride are set according to temperature.
 2 Water having a CaCO₃ hardness of 0 to 60 mg/L is classified "soft"; 61 to 120 mg/L, "moderately hard"; 121 to 180 mg/L, "hard"; and more than 181 mg/L, "very hard."
 3 Carbon dioxide concentration calculated from measured values of pH and bicarbonate ion.
 4 Analysis by Tribble and Richardson, Inc., Macon, Ga.
 5 Analysis by Georgia Environmental Protection Division.
 6 Laboratory value.